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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,709	08/18/2003	Patricia A. Stewart	02-2176	4375

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EXAMINER

JOHNSON, JERRY D

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/642,709

Applicant(s)

STEWART ET AL.

Examiner

Jerry D. Johnson

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 8, 17-20, 23-28, 31, 32 and 36-43 is/are pending in the application.
- 4a) Of the above claim(s) 36-43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8, 17-20, 23-28, 31 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Milliken et al.

Milliken et al., U.S. Patent 3,087,213, teach a method for the continuous and semi-continuous casting of ingots of aluminum wherein the mold is provided with a lubricant containing an organic BF₃ carrier compound (column 1, lines 10-19).

Claims 17-20, 24-28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Milliken et al.

Milliken et al., U.S. Patent 3,087,213, teach a method for the continuous and semi-continuous casting of ingots of aluminum wherein the mold is provided with a lubricant

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containing an organic BF_3 carrier compound (column 1, lines 10-19). The boron trifluoride content of the mold lubricant should be between 0.1 and 1.0 percent by weight of the entire composition (column 1, lines 64-67). The carrier may be of a mineral, animal or vegetable base, or a combination thereof (column 3, lines 62-64). While the teachings of Milliken et al. are not limited to the specifically claimed concentrations or base oils, it would have been obvious to one having ordinary skill in the art at the time the invention was made to follow the above teachings and arrive at the instantly claimed compositions.

Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Abramowski et al.

Abramowski et al., U.S Patent 6,521,569, teach lubricant compositions comprising oil; fluorocarbon polymer; and a non-flammable solvent (column 3, lines 62-64). In column 6, Examples 1 and 2, compositions comprising PTFE are disclosed.

Claims 3, 4, 17-20, 23-28, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abramowski et al.

Abramowski et al., U.S Patent 6,521,569, teach lubricant compositions comprising oil; fluorocarbon polymer; and a non-flammable solvent (column 3, lines 62-64). The term "oil" refers to both natural and synthetic oils. Natural oils include, but are not limited to vegetable oil (for example, linseed, tung, oiticica, soybean, cottonseed, castor, coconut, palm) and animal oil (column 4, lines 23-28). Fluorocarbon polymer is preferably present in amounts from about 0.05 to about 5 percent by weight (column 4, lines 34-39). The term "fluorocarbon polymer" includes, but is not limited to, tetrafluoroethylene, chlorotrifluoroethylene and polymers thereof, polytetrafluoroethylene, tetrafluoroethylene homopolymer, polytetrafluoroethylene resin, fully

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fluorinated copolymers of hexafluoropropene and tetrafluoroethylene, fluorinated ethylene-propylene polymers, polyvinylidene fluoride, hexafluoropropylene, fluoroelastomers and mixtures thereof (column 4, lines 50-59). While Abramowski et al. differ from the instant claims in not being limited to compositions containing vegetable oils and the specific fluorine-containing compounds of the claims, it would have been obvious to one having ordinary skill in the art at the time the invention was made to follow the teachings of Abramowski et al. and arrive at the instantly claimed composition because Abramowski et al. teach lubricating compositions which encompass the compositions of the claims.

Claims 1-4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takagi et al.

Takagi et al., U.S. Patent 6,335,309, teach die release lubricant compositions comprising powder solid lubricant, adhesion enhancer made of organic or inorganic compound and volatile solvent (column 2, lines 3-5). The powder solid lubricant may be, *inter alia*, polytetrafluoroethylene (column 6, lines 4-10). The die release lubricant includes the powder solid lubricant at 1-70% by weight, the adhesion enhancer at 0.0005-10.5% by weight and the volatile solvent at 98.995-19.5% by weight when it is used (column 6, lines 23-26). While Takagi et al. differ from the instant claims in not requiring the composition to contain polytetrafluoroethylene, it would have been obvious to one having ordinary skill in the art at the time the invention was made include polytetrafluoroethylene in a die release lubricant composition as taught by Takagi et al.

Claims 1-4, 8, 17-20, 23-28, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kok et al.; alone, or in view of Abramowski et al.

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Kok et al. U.S. Patent 6,040,278, teach water-free compositions for treating the walls of dies for original shaping or reshaping, containing up to 30% of paraffin and/or polyolefin waxes and at least 70% of oil, the oil being a silicone oil, a synthetic oil, a vegetable oil, a mineral oil, or a mixture of such oils (column 2, lines 6-11). Suitable vegetable oils include, for example, castor oil, soybean oil, sunflower seed oil, and linseed oil. Examples of synthetic oils which are preferred for use are oleates such as glycerol trioleate (column 3, lines 37-40). Additives for improving the lubricating and release properties are, for example, Teflon-like compounds, micronized siloxane resin beads, and various types of pigments, all of which are known to the expert (column 3, lines 59-62). While Kok et al. do not teach the amount of "Teflon-like" compounds, it would have been obvious and well within the ability of the skilled artisan to determine the optimum amounts of said known lubricant additives to achieve their recognized desired effects on lubricants. Cf. *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955); *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973);, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Abramowski et al., U.S Patent 6,521,569, is relied on as teaching "Teflon-like" compounds, i.e., tetrafluoroethylene, chlorotrifluoroethylene and polymers thereof, polytetrafluoroethylene, tetrafluoroethylene homopolymer, polytetrafluoroethylene resin, fully fluorinated copolymers of hexafluoropropene and tetrafluoroethylene, fluorinated ethylene-propylene polymers, polyvinylidene fluoride, hexafluoropropylene, fluoroelastomers and mixtures thereof (column 4, lines 50-59).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the fluorocarbon polymers of Abramowski et al. as the "Teflon-like" compound in a lubricant composition as taught by Kok et al.

Applicant's arguments filed January 13, 2005, to the extent they pertain to the instant grounds of rejection, have been fully considered but they are not persuasive.

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Applicants argue

Milliken et al. teaches incorporating an inorganic fluoride into an organic lubricant base providing an organic-inorganic material.

Claim 1 listing specific all organic fluorine containing compounds should be allowable. Amended claim 17 lists specific lubricant oils plus organic fluorine compounds. Amended claim 25 is along the same line and is even more specific as to the lubricant oil. One looking at the whole point of Milliken et al. would necessarily have to include substantial amounts of BF_3 vapor as protective gas. (Remarks, page 11 and 12).

Applicants' argument lacks merit.

The "organic BF_3 -carrier compound" of Milliken fully meets the limitation of a claimed organic fluorine-containing compound. As to the base oil, Milliken broadly teaches that vegetable base oils are suitable. Accordingly, the specifically claimed vegetable base oils would have been obvious to one having ordinary skill in the art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

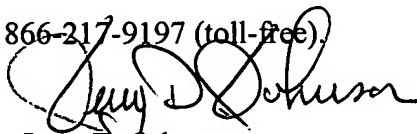
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry D. Johnson
Primary Examiner
Art Unit 1764

jdj